N.J. Board of Public Utilities Highlights Proposed Camden County Microgrid

Resilient, sustainable energy system would provide continuity of operations to critical public facilities during electric grid outages

CAMDEN, N.J. – Today, New Jersey Board of Public Utilities (Board) President Richard S. Mroz, along with Commissioners MaryAnna-Holden, Dianne Solomon, and Upendra J. Chivukula joined energy experts and county officials to highlight the Board’s approval of Camden County’s application for a microgrid feasibility study. The project would connect the Camden County Municipal Utility Authority (CCMUA) wastewater treatment plant and the Covanta Camden Energy Recovery Center, a waste-to-energy facility, along with other critical facilities within the city. The project would allow the two facilities to exchange electrical and thermal energy under normal conditions and during emergencies.

“This proposed microgrid integrates existing local resources including the resource recovery facility’s generation capacity into a town center microgrid allowing us to take advantage of investments made years ago,” said President Mroz. “This unique microgrid system would enable the CCMUA to remain operational during power outages, which could prevent raw sewage from flowing into the Delaware River and its tributaries.”

In the aftermath of Superstorm Sandy, the Christie Administration made it a priority to improve energy resiliency and the emergency preparedness and response of the utility companies. Therefore, the Energy Master Plan 2015 EMP Update contained a new section on hardening and improving utility infrastructure resiliency which supports the establishment of Distributed Energy Resources (DER) such as microgrids to improve the grid’s resiliency and reliability in the event of a major emergency. The EMP Update also directed the Board to continue its work with the utility companies, local, state and federal governments, and other strategic partners to identify, design and implement Town Center DER microgrids to power critical facilities and services across the state.

The microgrid would:
• Enable CCMUA and Covanta to exchange electric power during normal and emergency conditions
• Interconnect schools, public shelters and other critical facilities
• Provide CCMUA with thermal energy from Covanta
• Provide Covanta with treated wastewater from CCMUA

The use of treated wastewater by Covanta will allow Covanta to reduce its use of potable water and reduce stress on the local aquifer system.

“We learned in the aftermath of Superstorm Sandy that wastewater treatment plants are extremely vulnerable to severe weather events and power outages, which is why having an independent power source is so critical,” Andy Kricun, Executive Director/Chief Engineer CCMUA.

CCMUA is also taking steps to reduce vulnerability to power outages by implementing green energy solutions like solar energy and biogas conversion.

“The BPU sponsored microgrid project between Covanta and CCMUA will be an exceptional model of public/private collaboration and sustainability that will increase efficiency and resiliency for critical utility infrastructure,” said Richard Sandner, Vice President and General Manager of Covanta’s New York/New Jersey Region. “We sincerely appreciate the help and support of the Board of Public Utilities, the NJ Department of Environmental Protection and the NJ Environmental Infrastructure Trust.”

The critical facilities included in the feasibility study include:

The Camden Housing Authority
Riletta T. Cream Elementary School
H.B. Wilson Elementary School
New Village Supermarket
Fellowship House of South Camden
Fortunas Food Market
Citgo Gas

Based on the list of partners and proposed critical facilities there are seven FEMA category IV designated facilities (category IV is the most critical facility category according to FEMA) and six FEMA categories III facilities that can provide shelter in an emergency.

The feasibility study is expected to be completed within twelve months at a cost of $150,000.

The Board established a Town Center Distributed Energy Resource Microgrid Feasibility Study program to provide incentives for local and state government agencies to study the feasibility of developing Town Center DER microgrids. The Board has approved funding for all 13 applications received at a total cost of $2,052,480. The Board approved funding for applications submitted by: Atlantic City, Camden County, Cape May County MUA, Galloway Township, Highland Park, Hoboken, Hudson County, Middletown Township, Montclair Township, Neptune Township, Paterson, Woodbridge Township.

Information regarding the board’s approval of the 13 applications for feasibility studies is below: www.state.nj.us/bpu/newsroom/announcements/pdf/20170630_MicrogridFeasibilityStudies.pdf